

REMARKS

This is in response to the Office Action mailed August 12, 2008. Claims 5 and 17 have been amended, and no new matter has been added to the application. No fee for additional claims is due by way of this Amendment. The Director is authorized to charge any additional fees due by way of this Response, or credit any overpayment, to our Deposit Account No. 19-1090. Claims 5-7, 13 and 17-21 remain pending.

Rejections under 35 U.S.C. § 103(a) Based on Kobayashi and Kinoshita

Claims 5-7, 13 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 62-204442, to Kobayashi *et al.* ("Kobayashi"), and JP 2000-285509, to Kinoshita *et al.* ("Kinoshita"). The current rejections are respectfully traversed because Kobayashi, alone or in combination with Kinoshita, fails to disclose, teach or suggest all of the elements of the claims as amended. *See* M.P.E.P. § 2143.03 (stating that all words in a claim must be considered in judging the patentability of that claim against the prior art).

In particular, independent claim 5 has been amended to recite, *inter alia*, "a first recording layer formed on the substrate and containing an element selected from a group consisting of C, Si and Ge as a primary component" and "a second recording layer located in a vicinity of the first recording layer and containing an element selected from the group consisting of C, Si and Ge and different from the element contained as the primary component in the first recording layer." Although it is respectfully submitted that claim 5 as previously pending was allowable over Kobayashi and Kinoshita, the above claim amendments have been made in order to expedite prosecution.

As noted by the Examiner, Kobayashi discloses three different recording bilayers: a first embodiment with layers of Si and Au, a second embodiment with layers of Si and Ag, and a third embodiment with layers of Te and Ge. *See* Office Action, p. 3. None of these three embodiments corresponds to the composition of the first and second recording layers recited in claim 5. Moreover, the disclosed elements would not be mixed and matched by a person skilled in the art to arrive at the claimed first and second recording layers. In fact, the different

recording layer combinations of Kobayashi employ carefully defined elemental ratios in order to realize the alloyed areas disclosed by Kobayashi.

Meanwhile, Kinoshita discloses a first recording layer comprising Au, Ag, Cu, Pt, Pd, Sb, Te, In, Sn or Zn, and a second recording layer comprising Ge. *See* paragraphs [0005] and [0015] of the machine translation of Kinoshita. Even assuming, *arguendo*, that the Kobayashi and Kinoshita references are properly combinable, the combination of these references would only disclose first and second recording layers comprising Sn and Ge. *See* Office Action, p. 3. Thus, these references do not disclose, teach or suggest a first recording layer having an element selected from a group consisting of C, Si and Ge as a primary component, and a second recording layer having an element selected from a group consisting of C, Si and Ge and different from the element contained as the primary component in the first recording layer.

In view of the above remarks, it is respectfully submitted that the rejection of claim 5 as obvious over Kobayashi and Kinoshita is improper.

Claims 6-7, 13 and 21 depend from independent claim 5 and are allowable as depending from an allowable base claim, as well as for the novel and non-obvious combinations of elements recited therein.

Rejections under 35 U.S.C. § 103(a) Based on Kobayashi and Lee

Claims 5-6, 13 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kobayashi, in view of U.S. patent no. 4,477,819, issued to Lee *et al.* ("Lee"). These rejections are respectfully traversed because Kobayashi, alone or in combination with Lee, fails to disclose, teach or suggest all of the elements of the claims as amended. *See* M.P.E.P. § 2143.03 (stating that all words in a claim must be considered in judging the patentability of that claim against the prior art).

In particular, independent claim 5 has been amended to recite, *inter alia*, "a first recording layer formed on the substrate and containing an element selected from a group consisting of C, Si and Ge as a primary component" and "a second recording layer located in a vicinity of the first recording layer and containing an element selected from the group consisting

of C, Si and Ge and different from the element contained as the primary component in the first recording layer.”

As noted by the Examiner, Kobayashi discloses three different recording bilayers: a first embodiment with layers of Si and Au, a second embodiment with layers of Si and Ag, and a third embodiment with layers of Te and Ge. *See* Office Action, p. 3. Lee, on the other hand, discloses a first layer of Al, Au, Pb or Sn, and a second layer of Al, Au, Pb, Sn, Ge, or Si. *See* Lee, col. 1, ll. 54-57, and Office Action, p. 4. Even assuming, *arguendo*, that the Kobayashi and Lee references are properly combinable, the combination of these references would only disclose first and second recording layers comprising Sn and Ge, or Sn and Si. *See* Office Action, pp. 4-5. Thus, these references do not disclose, teach or suggest a first recording layer having an element selected from a group consisting of C, Si and Ge as a primary component, and a second recording layer having an element selected from a group consisting of C, Si and Ge and different from the element contained as the primary component in the first recording layer.

In view of the above remarks, it is respectfully submitted that the rejection of claim 5 as obvious over Kobayashi and Lee is improper.

Claims 6, 13 and 21 depend from independent claim 5 and are allowable as depending from an allowable base claim, as well as for the novel and non-obvious combinations of elements recited therein.

Rejections under 35 U.S.C. § 103(a) Based on Kobayashi, Kinoshita and Morimoto

Claims 5-7, 13 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kobayashi and Kinoshita, in view of U.S. patent no. 4,672,345, issued to Morimoto (“Morimoto”). The rejection of claim 5 is respectfully traversed because Morimoto does not supply the teachings described above that are missing from the Kobayashi and Kinoshita references. Claims 6-7, 13 and 21 depend from independent claim 5 and are allowable as depending from an allowable base claim, as well as for the novel and non-obvious combinations of elements recited therein.

Rejections under 35 U.S.C. § 103(a) Based on Kobayashi, Kinoshita, Morimoto and Fukano

Claims 5-7, 13 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kobayashi and Kinoshita, in view of Morimoto, and further in view of U.S. patent application publication no. 2001/0044073, to Fukano *et al.* ("Fukano"). The rejection of claim 5 is respectfully traversed because neither Morimoto nor Fukano supplies the teachings described above that are missing from the Kobayashi and Kinoshita references. Claims 6-7, 13 and 21 depend from independent claim 5 and are allowable as depending from an allowable base claim, as well as for the novel and non-obvious combinations of elements recited therein.

Rejections under 35 U.S.C. § 103(a) Based on Kinoshita, Lee and Wilkinson

Claims 17-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kinoshita or Lee, in view of U.S. patent no. 4,345,261, issued to Wilkinson ("Wilkinson"). The current rejections are respectfully traversed because Kinoshita or Lee, alone or in combination with Wilkinson, fails to disclose, teach or suggest all of the elements of the claims as amended. *See* M.P.E.P. § 2143.03 (stating that all words in a claim must be considered in judging the patentability of that claim against the prior art).

In particular, independent claim 17 has been amended to recite, *inter alia*, "a first recording layer formed on the substrate and containing an element selected from the group consisting of C, Si and Ge as a primary component, and a second recording layer located in the vicinity of the first recording layer and containing an element selected from the group consisting of C, Si and Ge and different from the element contained as a primary component in the first recording layer as a primary component." Although it is respectfully submitted that claim 17 as previously pending was allowable over the combination of Kinoshita, Lee and Wilkinson, the above claim amendments have been made in order to expedite prosecution.

For substantially the same reasons discussed above, it is submitted that neither Kinoshita nor Lee discloses, teaches or suggests a first recording layer containing an element selected from the group consisting of C, Si and Ge as a primary component, and a second recording layer containing an element selected from the group consisting of C, Si and Ge and different from the element contained as a primary component in the first recording layer. The

rejection of claim 17 is therefore respectfully traversed because Wilkinson does not supply the teachings described above that are missing from the Kinoshita and Lee references. Claims 18-20 depend from independent claim 17 and are allowable as depending from an allowable base claim, as well as for the novel and non-obvious combinations of elements recited therein.

Rejections under 35 U.S.C. § 103(a) Based on Kobayashi, Rii, Wilkinson and Fukano

Claims 17-20 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Kobayashi or JP 58-220794, to Rii *et al.* ("Rii"), in view of Wilkinson, and further in view of Fukano. It is respectfully submitted that these rejections do not present a *prima facie* case of obviousness for reasons similar to those discussed above.

In particular, independent claim 17 has been amended to recite, *inter alia*, "a first recording layer formed on the substrate and containing an element selected from the group consisting of C, Si and Ge as a primary component, and a second recording layer located in the vicinity of the first recording layer and containing an element selected from the group consisting of C, Si and Ge and different from the element contained as a primary component in the first recording layer as a primary component."

Kobayashi discloses three different recording bilayers: first embodiment with layers of Si and Au, a second embodiment with layers of Si and Ag, and a third embodiment with layers of Te and Ge. *See* Office Action, p. 3. Rii, on the other hand, discloses a first layer of Al, Au, Ag or Sn, and a second layer of Al, Au, Ag, Sn, Ge, or Si. *See* Rii, Abstract, and Office Action dated November 14, 2007, p. 7. Even assuming, *arguendo*, that the Kobayashi and Rii references are properly combinable, the combination of these references would only disclose first and second recording layers comprising Sn and Ge, or Sn and Si. Thus, these references do not disclose, teach or suggest a first recording layer having an element selected from a group consisting of C, Si and Ge as a primary component, and a second recording layer having an element selected from a group consisting of C, Si and Ge and different from the element contained as the primary component in the first recording layer. The rejection of claim 17 is therefore respectfully traversed because neither Wilkinson nor Fukano supplies the teachings described above that are missing from the Kobayashi and Rii references.

Claims 18-20 depend from independent claim 17 and are allowable as depending from an allowable base claim, as well as for the novel and non-obvious combinations of elements recited therein.

Conclusion

In light of the above remarks, it is respectfully submitted that all of the pending claims 5-7, 13 and 17-21 are allowable. Therefore, it is respectfully requested that the Examiner reconsider this application and timely allow all pending claims. The Examiner is encouraged to contact Mr. Evans by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired. If the Examiner notes any informalities in the claims, he is further encouraged to contact Mr. Evans by telephone to expediently correct such informalities.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,
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